

ABSTRACT

Provided are an alkaline protease wherein an amino acid residue at (a) position 84, (b) position 104, (c) position 256 or (d) position 369 of SEQ ID NO:1 or at a position corresponding thereto has been deleted or selected from: at position (a): an arginine residue, at position (b): a proline residue, at position (c): an alanine, serine, glutamine, valine, leucine, asparagine, glutamic acid or aspartic acid residue, and at position (d): an aspartic acid residue; an alkaline protease wherein an amino acid residue at (e) position 66 or 264, (f) position 57, each of 101 to 106, 136, 193 or 342, (g) position 46 or 205, (h) position 54, 119, 138, 148 or 195, (i) position 247, (j) position 124, (k) position 107 or (l) position 257 has been deleted or selected from: at position (e): a glutamine, aspartic acid or like residue, at position (f): a lysine, serine or like residue, at position (g): a tyrosine or tryptophan residue, at position (h): a tryptophan, phenylalanine or like residue, at position (i): a tryptophan, phenylalanine or like residue, at position (j): an alanine or lysine residue, at position (k): a lysine, arginine or like residue, and at position (l): a valine or isoleucine residue; a gene encoding the alkaline

protease; a recombinant vector containing the gene, a transformant containing the recombinant vector; and a detergent composition containing the alkaline protease.

The present invention makes it possible to provide
5 alkaline proteases having activity even in the presence of a high concentration of fatty acids, having high specific activity and detergency and being useful as an enzyme to be incorporated in a detergent.